1996 Status report on experiment WA102

A search for centrally produced non−$q\bar{q}$ mesons

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Outline

1) An introduction to experiment WA102

2) 1995 and 1996 Data taking status

3) Preliminary results

Run 1995

Setup was optimised for detection of the central system decays to ηs and η's in neutral and mixed decay modes.

Run 1996

Setup was optimised for detection of the central system decays to kaons with minimal loss in the photons detections performance.

The status of the 1995 and 1996 WA102 data

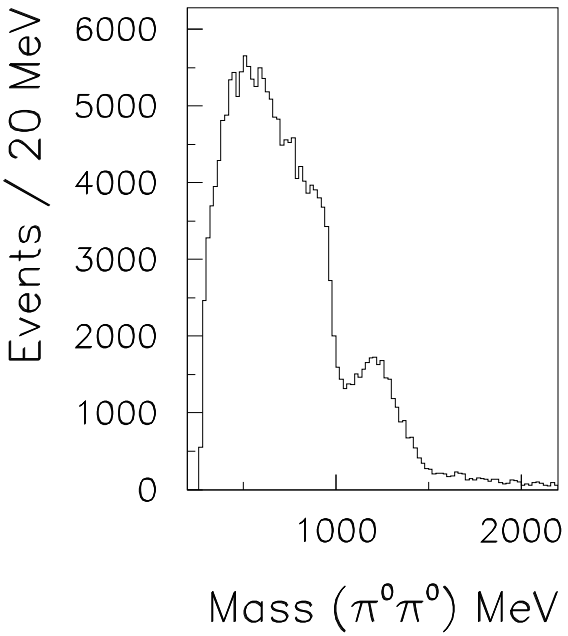
200 Million events were recorded from the 90 days of beam time in 1995

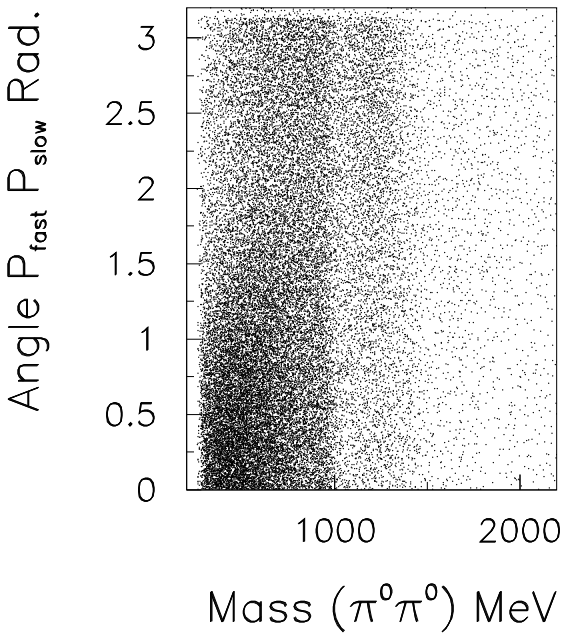
300 Million events were recored from 95 days of beam time in 1996

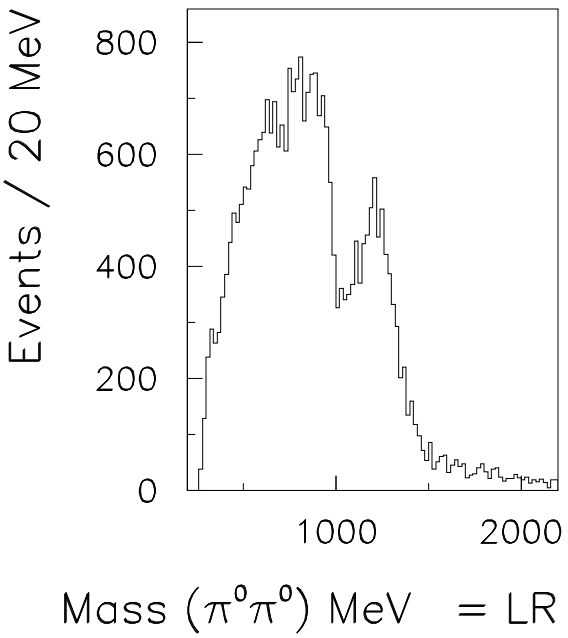
ALL data will be fully reconstructed by the end of this week

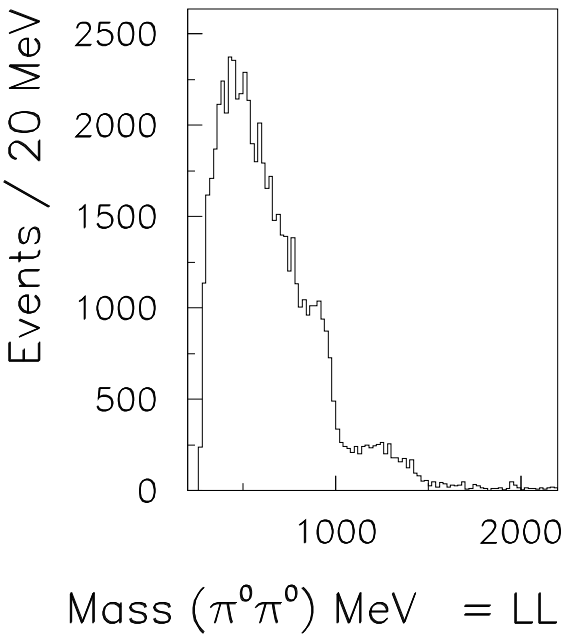
Detailed off–line detectors performance investigation for definition of the optimal selection criteria is in progress. It is well advanced for 1995 data and is already started for 1996 data

NA12/2, Run 1991. Trigger correlation



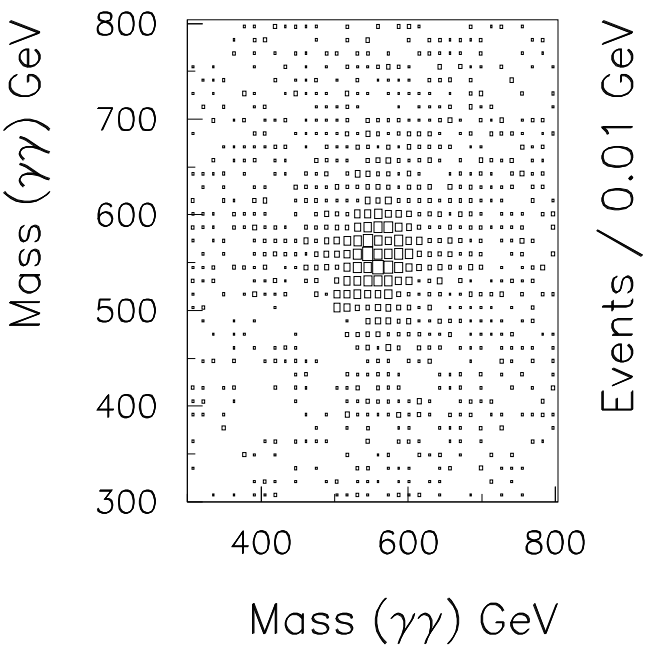


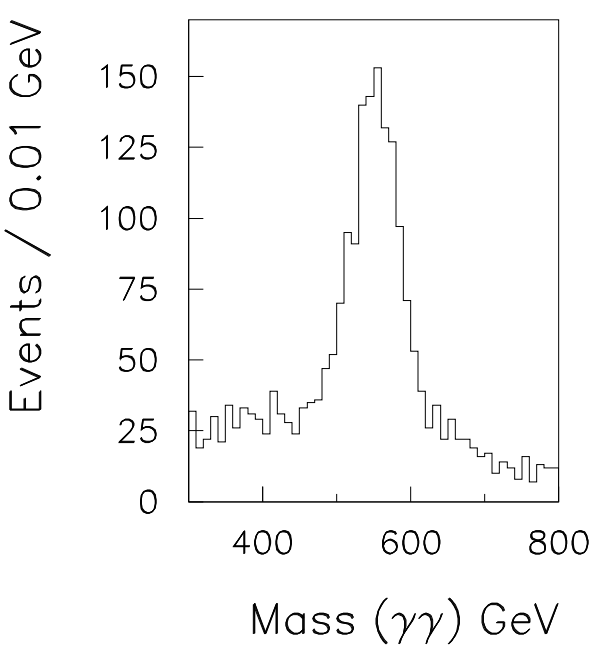


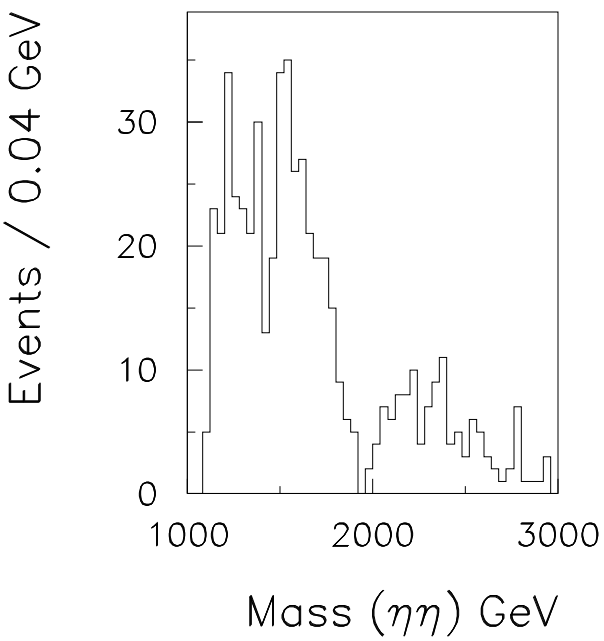


1995

$pp \rightarrow pp\,\eta\eta\,;\ \eta_{1,2} \rightarrow \gamma\gamma$

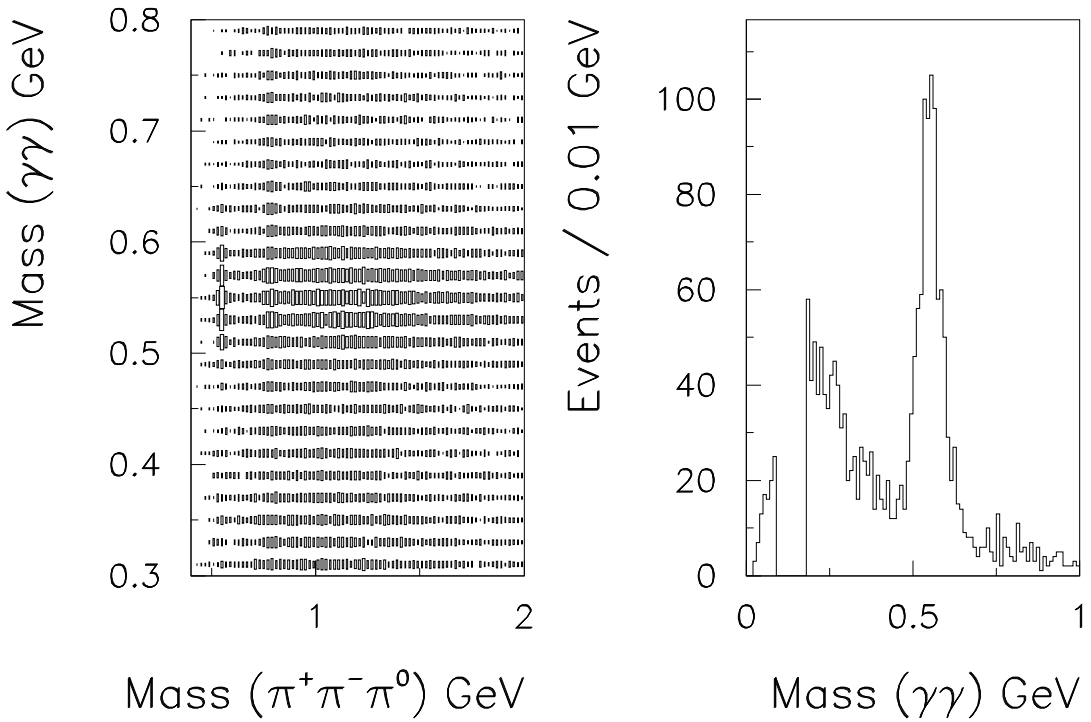




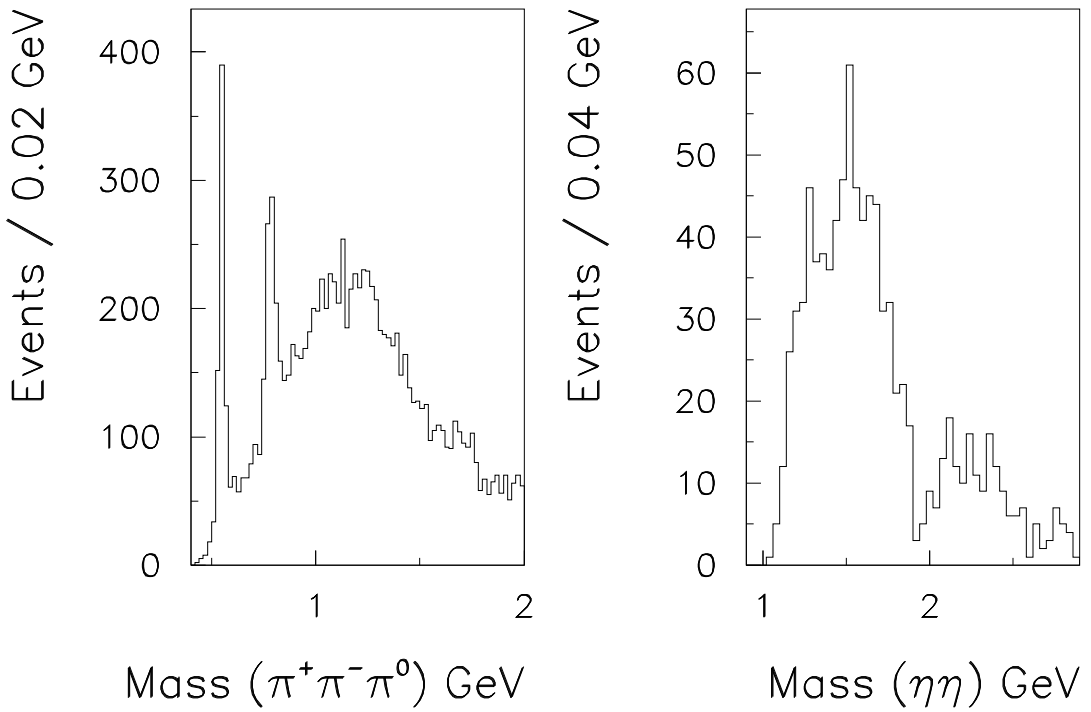


1995

$pp \rightarrow pp\,\eta\eta\,;\,\eta \rightarrow \pi^+\pi^-\pi^0\,,\,\gamma\gamma$

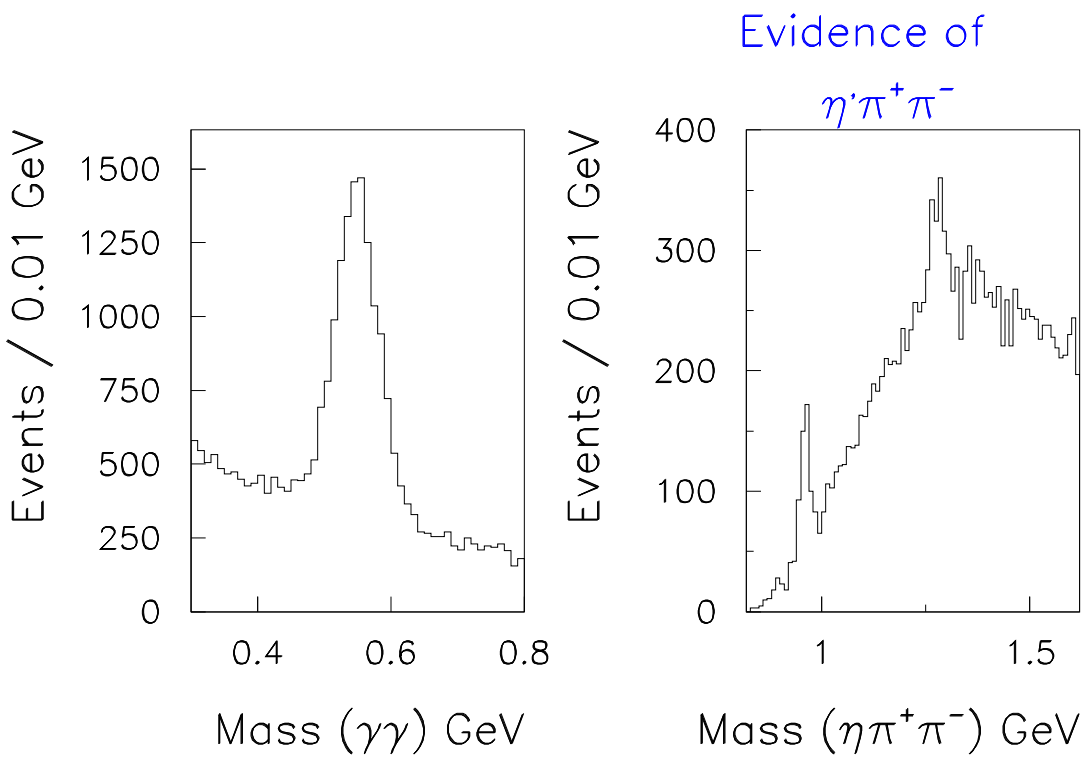


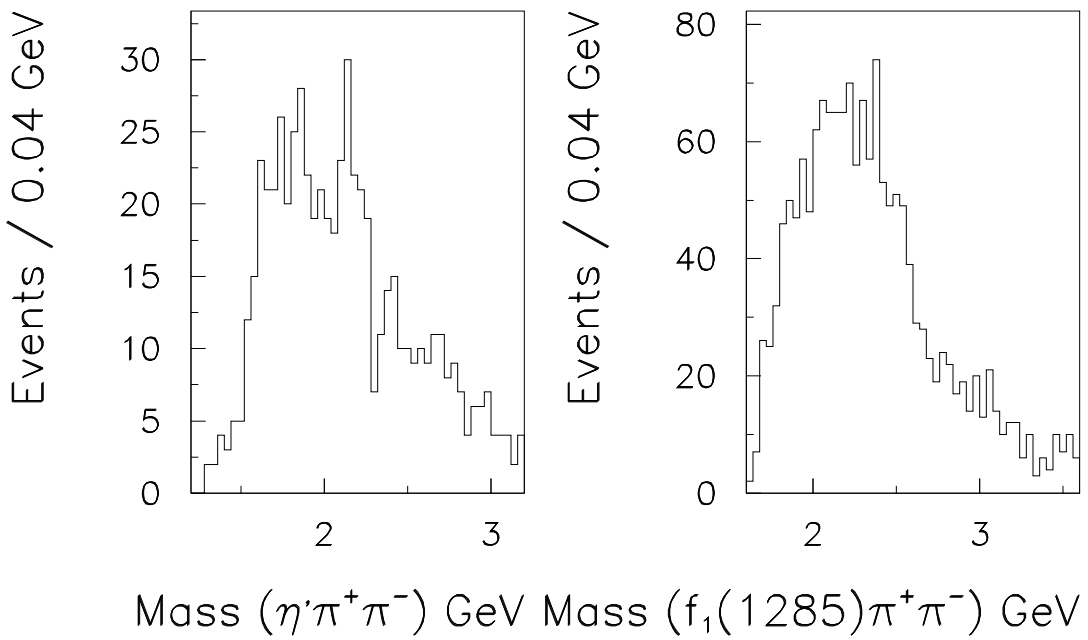
if $\eta \rightarrow \pi^+\pi^-\pi^0$ if $\eta \rightarrow \gamma\gamma$



1995

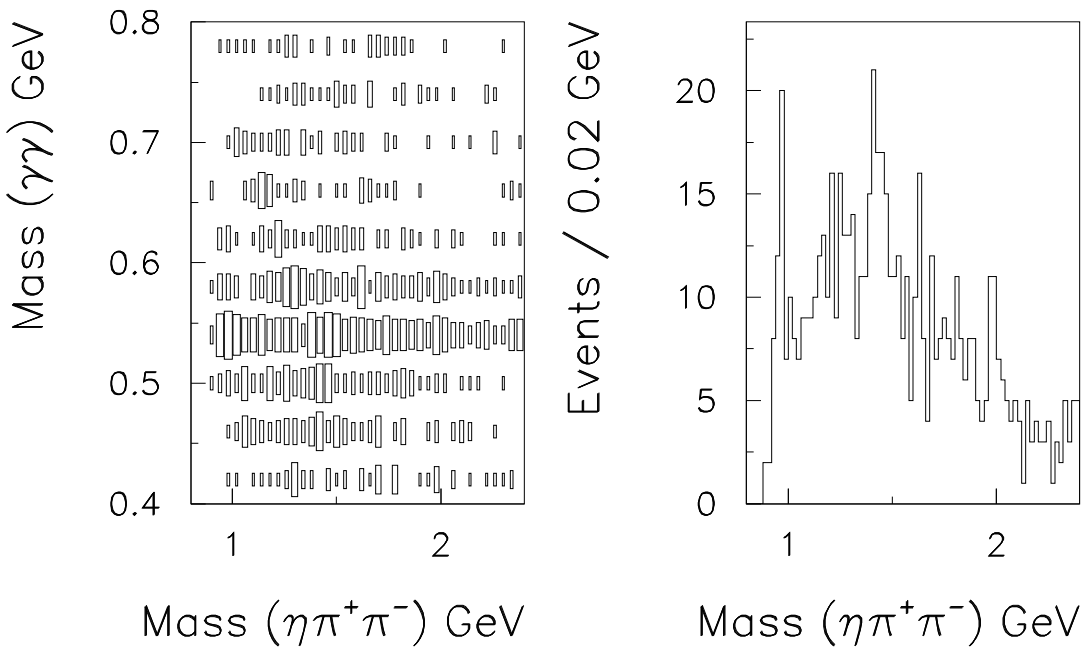
$pp \rightarrow pp(\pi^+\pi^-\pi^+\pi^- 2\gamma)$

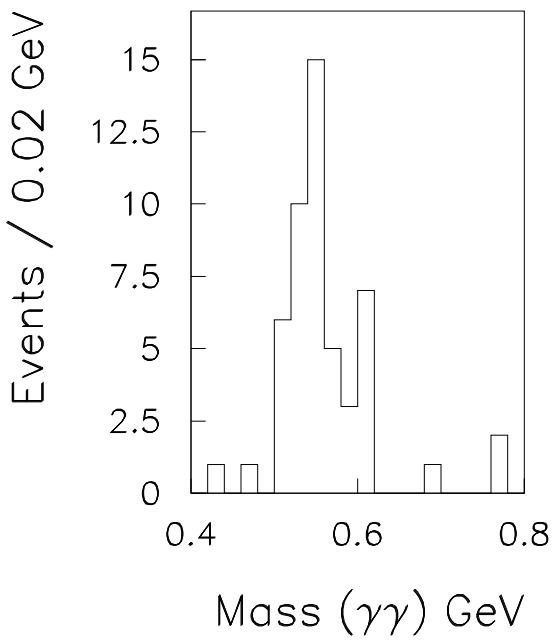




1995

Evidence for $\eta\eta'$

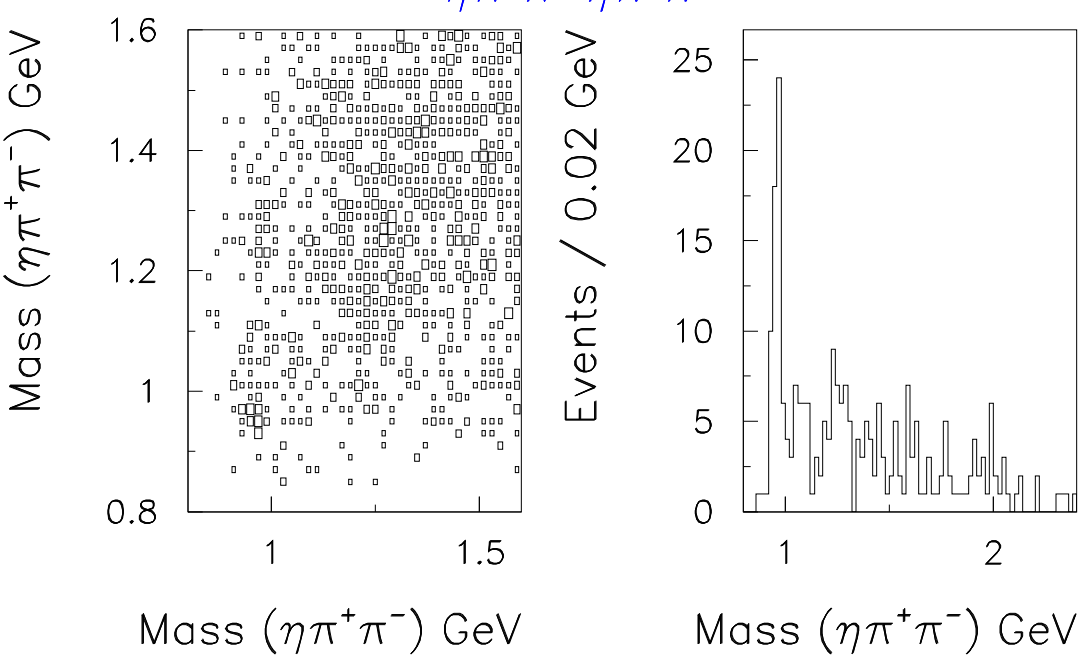




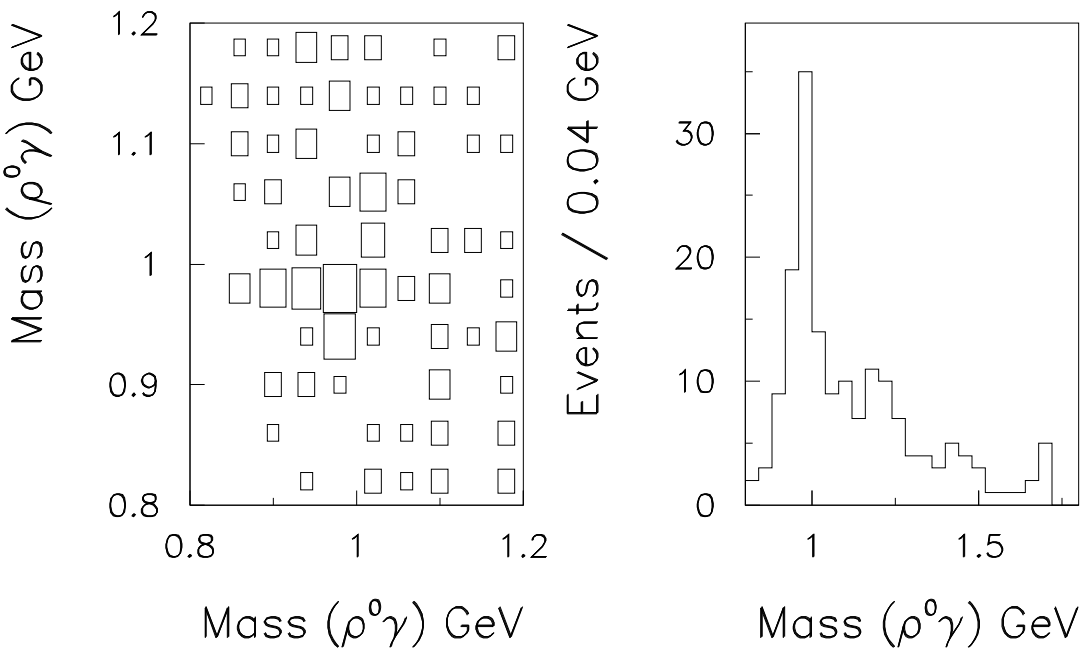
1995

Evidence for $\eta'\eta'$

$\eta\pi^+\pi^-$ $\eta\pi^+\pi^-$

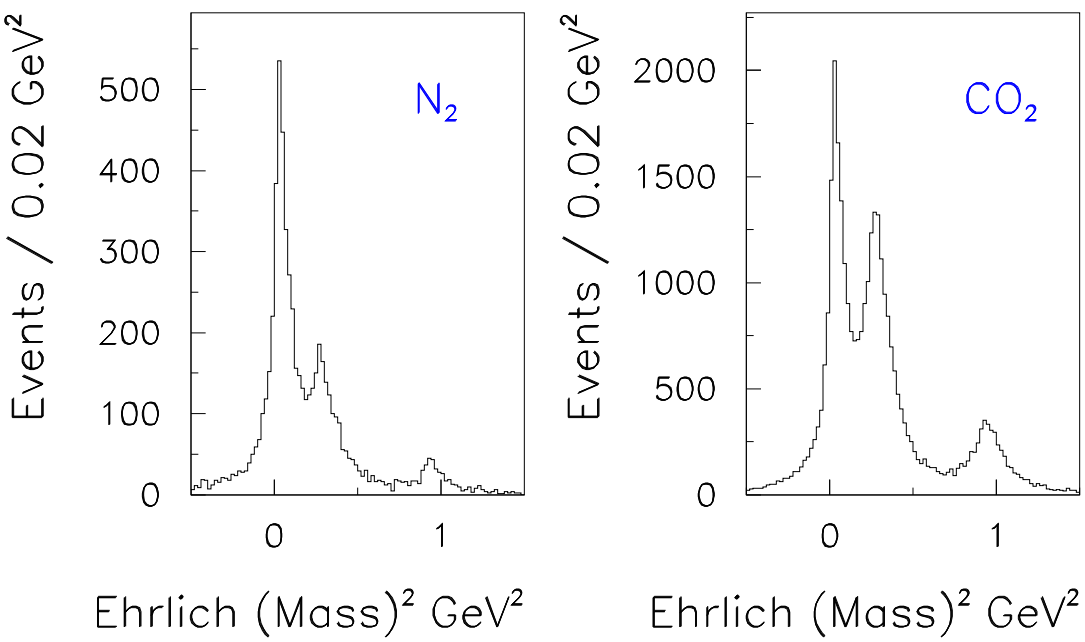


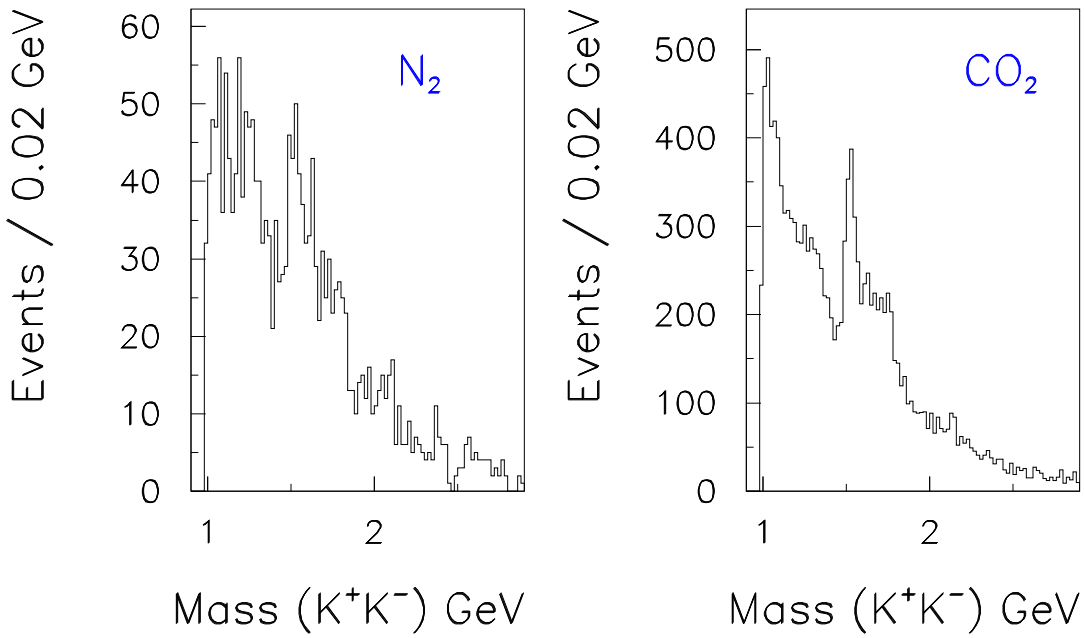
$\rho^0\gamma$ $\rho^0\gamma$



1996

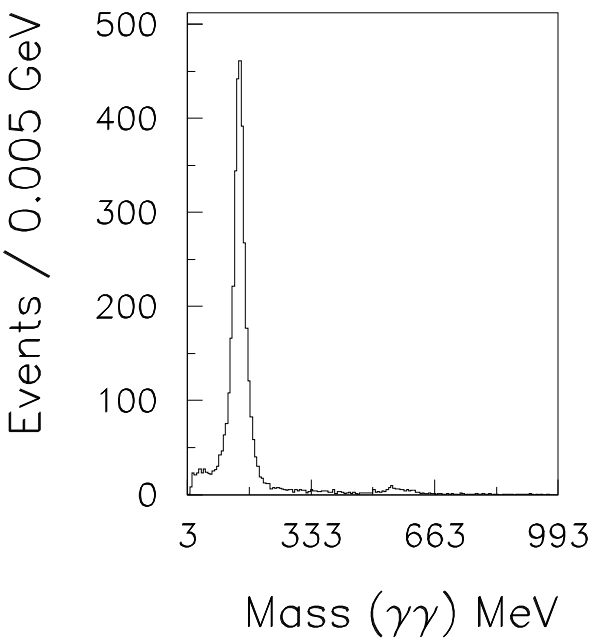
$pp \rightarrow pp(K^+K^-)$



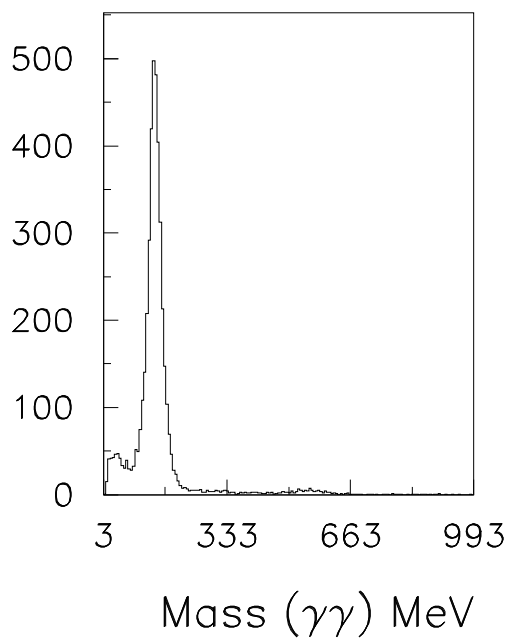


GAMS detector performance

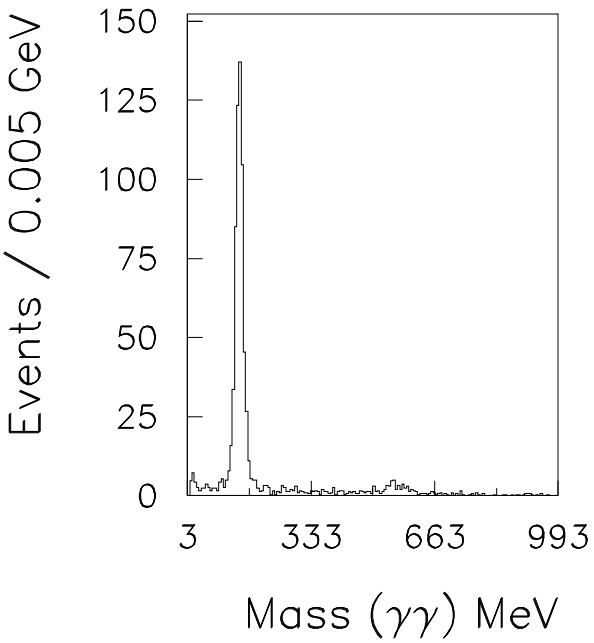
1995

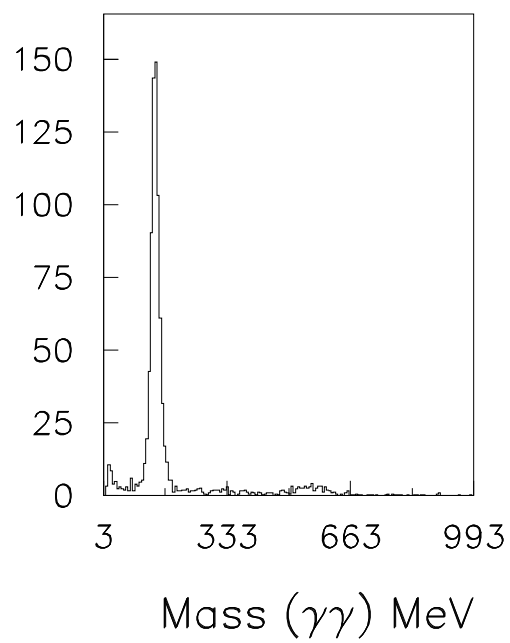


1996



All events

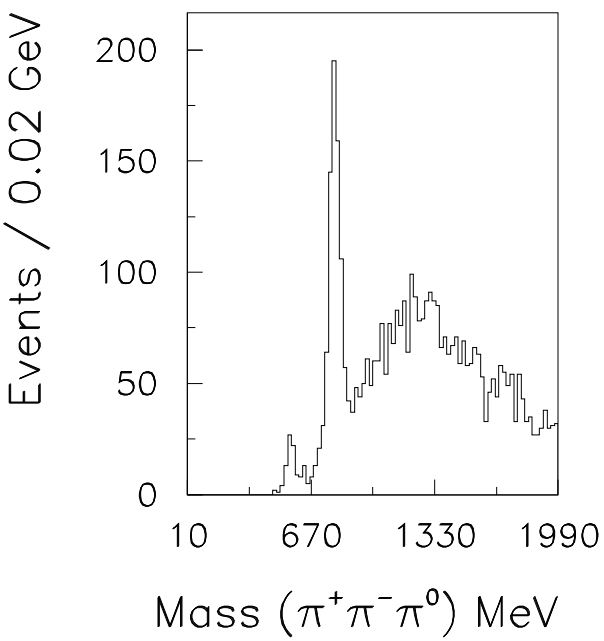




Central zone excluded

GAMS detector performance

1995



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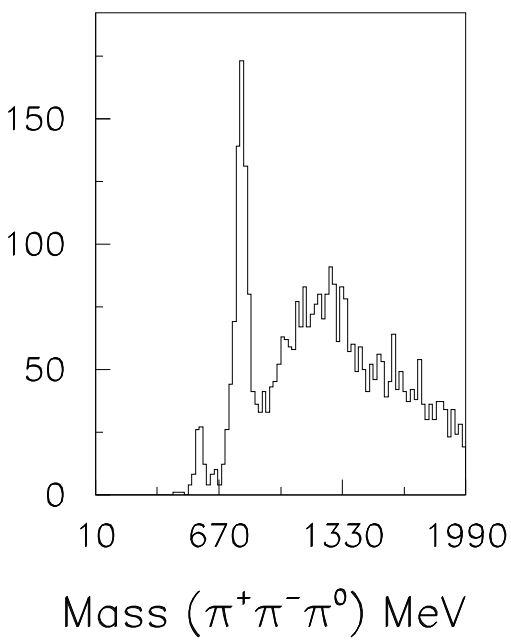

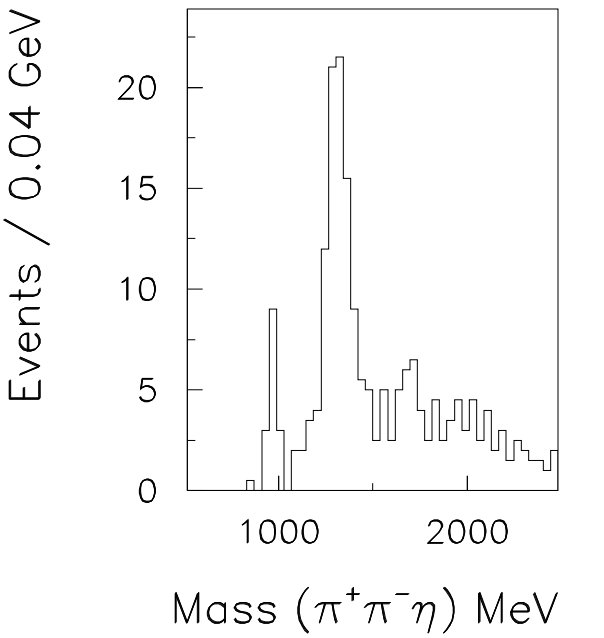

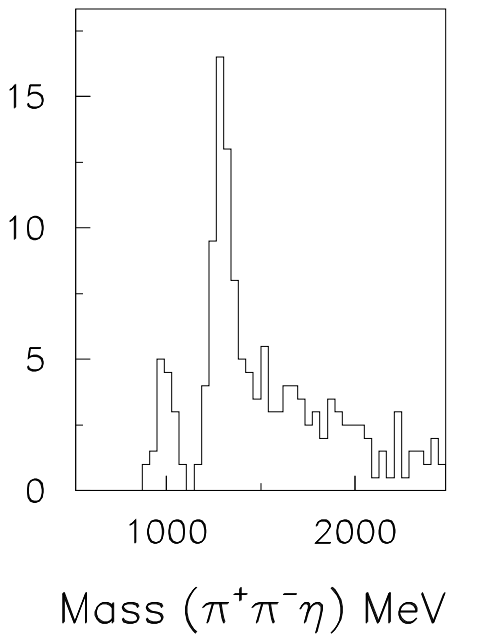

Summary

1. WA102 experiment had two successful data taking runs in 1995 and 1996

2. High statistics high quality data samples on centrally produced systems decays with etas, etaprims and kaons are obtaned.

3. Raw data reconstruction is practically finished.

4. Physical data analysis is in progress.